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RESEARCH IN HOME ECONOMICS

at the

LAND-GRANT INSTITUTIONS

1936-1937

Compiled by

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## EXPLANATORY NOTE

This compilation of information on the present status of research in Home Economics at Land-Grant Institutions attempts to cover research in progress as of November 1, 1936, and publications from November 1, 1935, to November 1, 1936. The lists are limited for the most part to research conducted in home economics departments. Although it is recognized that research of value to one or another of the various subject matter divisions of home economics is being conducted in other departments of the Land-Grant Institutions, space limitations prevent the inclusion of such research except as it is of co-operative nature with home economics, or is being conducted especially for home economics in institutions where there is little or no research in the home economics department.

In section I research in progress is indicated by project title, date of approval by the Office of Experiment Stations, U.S.D.A., if the project is supported in part or as a whole by Federal funds, names of project leaders and research workers, and sources of financial support. The terms Purnell, Adams, Hatch, and Bankhead-Jones refer to Federal funds provided for research at the State agricultural experiment stations under these Congressional Acts. Brackets are used to indicate the departments other than Home Economics either cooperating in the research, in which case only the names of the cooperating research workers and departments are bracketed, or entirely responsible for the research, in which case the project titles are also included within the brackets.

In section II, covering the publications of the year, precedence is given to State agricultural experiment station publications. Many of these are available on request from the station in question. References to journal articles are given in the form used in the Experiment Station Record, which publishes abstracts of most of the publications listed.





## ALABAMA

### I.

[Studies of the vitamin B complex, 6/16/27, W. D. Salmon and G. A. Schrader, Animal Husbandry] (Purnell).

[Pathological conditions associated with a lack of the vitamin B complex, 6/16/27, W. D. Salmon and C. O. Prickett, Animal Husbandry] (Adams and Purnell).

[A study of quality in cowpeas and soybeans for human food, 12/6/35, W. D. Salmon and W. C. Sherman (Bankhead-Jones)].

## ARIZONA

### I.

The relation of nutrition to "mottled enamel" endemic in certain Arizona communities, 7/10/31, M. C. Smith and L. Otis (Purnell).

The availability for hemoglobin formation of iron and copper in certain dried fruits and the effect of the sulfuring process thereupon, 10/28/35, M. C. Smith, L. Otis, and C. Ridder (Purnell).

The vitamin content of certain foodstuffs, including the effect of cooking and comparison of chemical and biological methods of assay, 10/28/35, M. C. Smith, D. Bradfield, and E. Gillan (Purnell).

### II.

Mottled enamel in the Salt River Valley and the fluorine content of the water supplies, H. V. and M. C. Smith and E. O. Foster. Arizona Sta. Tech. Bul. 61 (1936), pp. 372-418.

The effect of fluorine upon the phosphatase content of plasma, bones, and teeth of albino rats, M. C. Smith and E. M. Lantz. Jour. Biol. Chem., 112 (1935), pp. 303-311.

Potability of water from the standpoint of fluorine content, H. V. Smith. Amer. Jour. Pub. Health, 25 (1935), pp. 434-441.

The banana as a source of iron for hemoglobin formation, M. C. Smith and L. Otis. Jour. Home Econ., 28 (1936), pp. 395-398.

The vitamin A content of three varieties of squash, M. C. Smith. Jour. Home Econ., 28 (1936), pp. 467-469.

Dietary factors in relation to mottled enamel, M. C. Smith. Jour. Dental Res., 15 (1936), pp. 281-290.

## ARKANSAS

### I.

A study of the factors which affect the quality of canned tomatoes, 5/1/34, M. E. Smith and Z. C. Battey (Purnell).

The causes and prevention of spoilage of home-canned vegetables in Arkansas, 5/1/34, M. E. Smith and [W. L. Bleecker, Bacteriology] (Purnell).

Fresh and canned tomato juice as a means of therapy for ascorbic acid sub-nutrition in rural school children, 4/14/36, M. E. Smith (Purnell).

An analysis of a few of the staple cotton materials used extensively for children's clothing, 5/1/34, O. Smenner (Purnell).

Health services and costs in certain rural areas of Arkansas, 4/4/36, I. C. Wilson and [W. H. Metzler, Rural Sociology] (Purnell).

## ARKANSAS

### I. (cont.)

Marketing of products of home industries in Arkansas, 4/23/36, I. C. Wilson and [T. W. Douglas, Rural Sociology] (Bankhead-Jones):

The effect of baking temperature and sodium bicarbonate on the stability of vitamin B<sub>1</sub> in rice polish, 10/20/36, Z. C. Battey (State).

### II.

Progress report in Arkansas Sta. Bul. 323 (1935), pp. 36-39.

Factors which affect the quality of canned tomatoes. I, A study of the physical and chemical constituents of Arkansas Marglobe tomatoes.--II, A study of the physical and chemical constituents of Arkansas Marglobe and Greater Baltimore tomatoes, M. E. Smith. Fruit Prod. Jour. and Amer. Vinegar Indus., 15 (1935), No. 3, pp. 81-83, 91, 114, 115, 122; 15 (1936, No. 12, pp. 365-370, 377, 379.

## CALIFORNIA

### I.

The effect of pre-digestion on the nutritive value of heated casein, A. Wiens and A. F. Morgan (Departmental).

The tissue lipids of cholesterol-fed rats as affected by pregnancy and lactation, F. Gillum (Departmental).

The effect of long-continued egg yolk feeding on the livers of rats, A. P. Hall (Departmental).

The effect of cholesterol feeding on senility changes in rat tissues, R. Okey (Departmental).

A study of rate of clearing of cholesterol from fatty livers of rats and of the lipids in the cleared livers, H. L. Gillum (Departmental).

The foaming ability, coagulability by heat and isoelectric points of egg white proteins, B. R. Monaghan (Departmental).

The effect of vitamin B and G deficiency on tissue lipids in rats, R. Okey (Departmental).

Hypervitaminosis D as produced by irradiated ergosterol and liver oil concentrates, A. F. Morgan and C. A. Handley (Departmental).

A study of the changes in physical and chemical constants of fat absorbed by doughnuts, E. Loudon (Departmental).

The effect of lactose-rich and vitamin G-deficient diets on reproduction in rats, A. F. Morgan and M. Morse (Departmental).

Starch gelatination as affected by the presence of sugar and other solutes, T. Rietzke (Departmental).

The vitamin content of California grape juices and wines, A. F. Morgan and H. Davison (Departmental).

The production of cataract in rats fed adequate and vitamin G-low diets, B. B. Cook (Departmental).

Vegetable cookery as related to edible quality, H. Morgan (Hatch and State).



## CALIFORNIA

### II.

The relation of diet to health, A. F. Morgan. Jour. Amer. Dental Assoc., 22 (1935), pp. 1465-1477.

Studies of emulsions of the mayonnaise variety, I. S. Hall and E. E. Halstrom. Abs. in Jour. Home Econ., 28 (1936), pp. 572, 573.

Effect of cholesterol feeding on growth of rats, R. Okey, H. L. Gillum, and L. S. Godfrey. Proc. Soc. Expt. Biol. Med., 34 (1936), pp. 131-133.

Cataract and dermatitis-producing nutritional factors, A. F. Morgan and B. B. Cook. Proc. Soc. Expt. Biol. Med., 34 (1936), pp. 281-285.

Pregnancy in cholesterol-fed rats, L. S. Godfrey and R. Okey. Proc. Soc. Expt. Biol. Med., 34 (1936), pp. 790-792.

The effect of quantitative underfeeding and of vitamin A deficiency on the tissue lipids of rats fed diets low in cholesterol, H. L. Gillum and R. Okey. Jour. Nutr., 11 (1936), pp. 303-308.

The effect of quantitative underfeeding and of vitamin A deficiency on the liver lipids of rats fed diets with added cholesterol, H. L. Gillum and R. Okey. Jour. Nutr., 11 (1936), pp. 309-317.

The effect of feeding egg yolk on the liver lipids of young rats, R. Okey and E. Yokela. Jour. Nutr., 11 (1936), pp. 463-470.

Vitamins retained in sulfured and unsulfured dried fruits, A. F. Morgan. Med. Women's Jour., 43 (1936), pp. 14-16, 24.

Some nutrition studies with dogs, G. A. Emerson. North Amer. Vet., 17 (1936), pp. 29-40.

## COLORADO

### I.

The baking of flour mixtures at high altitudes.--II, Physicochemical factors. Revised 8/15/32, M. A. Barmore (Purnell and State).

A study of factors affecting the culinary quality of potatoes, 11/5/34, M. A. Barmore (Purnell).

### II.

Progress report in Colorado Sta. Rpt. 1935, pp. 23, 24.

The influence of various factors, including altitude, on the production of angel food cake, M. A. Barmore. Colorado Sta. Tech. Bul. 15 (1936), pp. 54. See also Cereal Chem., 13 (1936), pp. 71-78, and Jour. Colo. Wyo. Acad. Sci., 2 (1935), p. 19.

## CONNECTICUT (Storrs)

### II.

Progress report in [Connecticut] Storrs Sta. Bul. 207 (1935), pp. 29, 30.

Vitamin B in different preparations of lima beans, E. C. Rogers and L. S. Belding. Abs. in Jour. Home Econ., 28 (1936), p. 571.

## FLORIDA

### I.

A study of the pathologic changes in tissues and organs of animals affected by deficiency diseases or by toxic substances, 10/9/33, C. F. Ahmann and [W. M. Neal, Animal Husbandry] (Purnell).

An investigation of human dietary deficiency in Alachua County, Florida, with special reference to nutritional anemia in relation to the composition of home-grown foods, 4/16/34, O. D. Abbott and C. F. Ahmann (Purnell).

The chemical composition and nutritive value of several Florida honeys, 9/28/36, C. F. Ahmann, O. D. Abbott [W. Newell and R. E. Foster] (Purnell).

A study of the jelling properties of several varieties of Florida grapes, 9/28/36, O. D. Abbott and K. W. Loucks (Purnell).

Standardization of home canned tomatoes and tomato juice, 9/28/36, O. D. Abbott and [M. Cobb, Extension] (Purnell).

### II.

Progress report in Florida Sta. Rpt. 1935, pp. 70-73.

## GEORGIA

### I.

Utilization of fruits and vegetables and their by-products. Revised 8/3/34. (a) A study of the jelly making properties of the Muscadine group of grapes, using the Delaware jelly test. (b) The introduction of peanut meal into the diet in as many and pleasing ways as possible, L. Ascham [Horticulture and Chemistry] (Purnell).

Studies in nutritional anemia. Revised 10/9/34. The available iron in turnip greens, collards, mustard and other greens used in the South, L. Ascham, M. Speirs, and D. Maddox, [K. T. Holley, Chemistry consultant] (Purnell).

The pimiento pepper in nutrition. (c) The vitamin A content of milk from pimiento-fed cows. Revised 8/3/34, L. Ascham, M. Speirs, D. Maddox, and [K. T. Holley, Chemistry] (Purnell).

The ascorbic acid content of southern grown fruits and vegetables, 9/4/35, L. Ascham, [K. T. Holley, Chemistry, and H. L. Cochran, Horticulture, consultants] (Purnell).

### II.

Progress reports in Georgia Sta. Ann. Rpt. 1934-35, pp. 30, 31; 1935-36, pp. 31, 32.

## HAWAII

### I.

Vitamin determination of Hawaiian foods and feeds, 5/31/29. Revised 8/30/33. Vitamins A, B, C, and G in Hawaiian foods, including chemical determinations of vitamin C. Organic nutrients and Ca, P, and Fe content of various Hawaiian foods and some Filipino foods, C. D. Miller, M. Potgieter, and R. C. Robbins (Hatch).

## HAWAII

### I. (cont.)

Chemical and biological studies of the opihi (Helcioniscus exeratus and H. argentatus), 5/26/31, C. D. Miller (Adams).

Anemia studies: The relation of blood constituents and blood-forming organs in nutritional anemia, 6/20/35, [C. J. Hamre, Zoology] and C. D. Miller (Adams and Territorial).

[The sterols of tropical oils, including avocado, kukui nut, coconut palm, chinawood, and chaulmoogra, 6/20/35, L. N. Bilger, J. H. Payne, and M. W. Westgate, Chemistry] (Adams).

[Iodine content of Hawaiian foods, including fruits, vegetables, and marine foods, 6/20/35, E. M. Bilger] (Hatch).

Nutritional investigation of taro, 11/27/35, [Agronomy] M. Potgieter and C. D. Miller (Tax Fund).

The evaluation of human uses and method of teaching people to eat taro, and taro projects, 12/31/35, N. P. Larsen (Tax Fund).

### II.

Progress report in Hawaii Sta. Rpt. 1935, pp. 23-26.

Some fruits of Hawaii: Their composition, nutritive value and use, C. D. Miller, K. Bazore, and R. C. Robbins. Hawaii Sta. Bul. 77 (1936), pp. 133.

Nutritive value of the protein of Cajanus indicus, C. D. Miller and R. C. Robbins. Jour. Agr. Res. [U. S.], 53 (1936), pp. 281-293.

## IDAHO

### I.

The vitamin C content of fresh and canned Italian prunes, 10/18/34, E. Woods (Purnell).

The vitamin E content of pea germ meal, 1/24/36, [A. O. Shaw and D. L. Fourt, Dairy Husbandry] and E. Woods (Purnell).

The vitamin G content of the Idaho Russet Burbank potato, 3/1/32, E. Woods (Purnell).

The vitamin A content of pasture plants under pasture conditions, 12/6/32, reopened 1935-36, [Dairy Husbandry] and E. Woods (Purnell).

### II.

Progress report in Idaho Sta. Bul. 220 (1936), pp. 34, 35.

Vitamin A activity of third cutting alfalfa hay as affected by methods of curing, E. Woods, F. W. Atkeson, H. Wellhousen, and R. F. Johnson. Jour. Dairy Sci., 19 (1936), p. 581.

Potatoes and the vitamin B complex, E. Woods. Abs. in Jour. Home Econ., 28 (1936), p. 571.

## ILLINOIS

### I.

The nutritive value of highly pigmented corns--(a) A study of the possibility of maintaining a high vitamin A content of milk by the inclusion in rations of intensely pigmented corn, 10/27/33, J. Outhouse, M. Hathaway, and J. Smith (Purnell).



## ILLINOIS

### I. (cont.)

The utilization of carotene by children, 5/17/34, J. Outhouse (Purnell).

The factors that influence bone calcification.--I, The role of lactose in mineral metabolism, 2/2/32, J. Outhouse; M. Hathaway, I. Twomey, and J. Smith (Purnell).

Mineral requirements of human subjects and the utilization of minerals of foods, 9/1/36, J. Outhouse and [H. H. Mitchell, Animal Husbandry] (Purnell).

A study of Illinois wheat flours and their behavior in baking. The effect of different bleaching treatments on baking quality, 1/3/27, S. Woodruff and E. Chambers (Purnell).

Characteristics of starches of wheats and of other sources. Photomicrographic studies of gelatinized corn and wheat starches, 7/8/31, S. Woodruff and M. MacMasters (Purnell).

Soybeans and soybean products as human food.--I, Selecting varieties suitable for edible use, 1/4/35, S. Woodruff and H. Klaas (Purnell).

Studies in the utilization of corn as human food.--II, Effects of freezing on the ease of removal of starch from the kernel and physical changes in starch gels brought about by freezing, 8/23/33, S. Woodruff and M. MacMasters (Purnell).

Illinois farm home accounts, 4/7/28, R. C. Freeman (Purnell).

Consumption studies in rural families, 2/26/36, R. C. Freeman (Bankhead-Jones).

Spray residue studies including metabolism and physiological effects of lead and arsenic and/or other spray residues on the animal body, 11/8/35, [H. H. Mitchell Animal Husbandry, W. A. Ruth, Horticulture] and J. P. Outhouse (Bankhead-Jones and State).

### II.

Progress reports in Illinois Sta. Rpt. 1934, pp. 248-262.

The effect of freezing on the physical and microscopic character of gels of corn and wheat starches, S. Woodruff and H. Hayden. Jour. Agr. Res. [U. S.], 52 (1936), pp. 233-237.

## INDIANA

### I.

A study of efficient kitchen arrangement, 5/23/30, G. Redfield (Purnell).

A study of the relation between color, composition, culinary qualities, and marketing value of Indiana potatoes grown on muck and other soil types [Horticulture], 1/18/34, G. Redfield (Purnell).

Refrigeration for the farm household and farm produce, 7/9/35, G. Redfield (Purnell and Supplemental).

A study of the use of the oven, the waterless cooker, the water-bath, and the pressure cooker for processing fruits and vegetables in home canning, R. Jordan (State).

A study of hydrogenated lard (produced under known conditions) as a culinary fat, R. Jordan (State).

### II.

Progress report in Indiana Sta. Rpt. 1935, pp. 43, 44.

Electricity serves the farm household, G. M. Redfield and T. E. Hienton. Indiana Sta. Circ. 214 (1936), pp. 12.

## IOWA

### I.

A study of the conditions influencing the production of uniform experimental animals in the stock colony, 10/24/31, P. M. Nelson, P. Swanson, and G. T. Stevenson (Purnell and State).

A study of the application of heat to cooking utensils of different materials, 10/14/33, L. J. Peet, M. S. Cover, and F. Madden. B. Lowe and [J. W. Woodrow, Physics] advisers (Purnell and State).

The influence of the feeding of certain fats upon the quality and palatability of beef; [M. D. Helser, F. J. Beard, and C. C. Culbertson, Animal Husbandry], and P. M. Nelson and B. Lowe cooperating (Purnell).

Source of Iowa incomes and their occupational and geographical distribution, 10/23/35, M. Reid and M. V. Britton [Agr. Econ.] (Purnell and State).

The nature of the dietary deficiency causing progressive retardation of growth in successive generations of rats, 8/8/36, P. M. Nelson, and M. Gunson (Purnell and State).

The biological value of autoclaved pork muscle, 8/8/36, P. P. Swanson, P. M. Nelson, G. T. Stevenson, and M. Gunson (Purnell and State).

Dietary factors in the production and cure of toxemic pregnancies induced by the feeding of certain pork diets, 8/8/36, P. P. Swanson, P. M. Nelson, G. T. Stevenson, and M. Gunson, with [E. Smith, Zoology, and H. D. Bergmann, Veterinary Medicine, advisers] (Purnell and State).

The lactagogue factor in liver and beef muscle, 8/8/36, P. P. Swanson, P. M. Nelson, R. A. Fowles, and E. B. Wilcox (Purnell and State).

The nutritional status of college women as related to their dietary habits: anthropometric measurements, the formed elements of the blood, basal metabolism and dietary balances, 8/8/36, P. M. Nelson, P. P. Swanson, M. A. Ohlson, [J. F. Edwards, S. B. Kalar and S. G. Grant, Hygiene; E. E. Smith, Physiology; and P. C. Jeans and G. Stearns, Pediatrics, Univ. Iowa]. [Regional Project, North Central States] (Purnell).

Degradation of wild silk, silk, and weighted silks by acid oxidation, revised 8/8/36, R. Edgar and R. L. Johnson [Chemistry] (Purnell).

### II.

Progress reports in Iowa Sta. Rpt. 1935, pp. 90, 91, 162-172.

The alkaline mercerization of wool, M. Barr and R. Edgar. Iowa State Col. Jour. Sci., 10 (1935), pp. 45-48.

The acid degradation of wool keratin, M. Barr and R. Edgar. Iowa State Col. Jour. Sci., 10 (1936), pp. 129-134.

The acid and alkaline degradation of chlorinated wool, F. Barr, M. Barr, and R. Edgar. Iowa State Col. Jour. Sci., 10 (1936), pp. 145-150.

Laboratory report on tests to determine causes of stretch and slippage of yarns in certain wool and silk fabrics, K. Cranor, E. McFadden, and L. Fryer. Iowa State Col. Jour. Sci., 10 (1936), pp. 317-339.

Tests to determine durability and resistance to wear of certain umbrella fabrics, V. Sykes and K. Cranor. Amer. Dyestuff Rptr., December 30, 1935.

The degradation of silk, wild silk and wool by steam, E. C. Walde, M. Barr, and R. Edgar. Textile Res., 6 (1936), pp. 235-240.

Alkaline degradation of wool keratin, M. Barr and R. Edgar. Textile Res., 6 (1936), pp. 273-277.

The effect of salt on silk, E. C. Walde, J. E. Ross, M. Barr, and R. Edgar. Jour. Home Econ., 28 (1936), pp. 179-182.



IOWA

II. (cont.)

The effect of laundering upon the appearance and wearing quality of some blanket fabrics, C. Jackson and K. Cranor. Amer. Dyestuff Rptr., August 10, 1936.

Inorganic salts in nutrition--changes in kidneys of rats fed a diet poor in inorganic constituents, P. P. Swanson, C. A. Storvick, and A. H. Smith. Jour. Biol. Chem., 114 (1936), pp. 309-319.

Effect of restriction of inorganic salts in the diet on organ growth, P. P. Swanson and A. H. Smith. Amer. Jour. Physiol., 116 (1936), pp. 516-523.

Problems of poultry cookery, B. Lowe. U. S. Egg and Poultry Mag., 42 (1936), pp. 272, 273, 336, 337, 383, 384.

KANSAS

I.

The vitamin content of foods relating to human nutrition.--2. Determination of the vitamin content of foods. Revised 11/25/35.

F. A study of the vitamins A and G content of the colostrum of the dairy cow.

H. A study of the vitamins A and G content of the milk of dairy cows maintained under conditions practiced in Kansas.

I. A study of bean sprouts as a source of vitamin C. M. M. Kramer and B. Kunerth [Dairy Husbandry] (Purnell).

A study of factors affecting the service qualities of certain textile fabrics. Revised 11/20/35.

3. The effect of heat, light and perspiration on the service qualities of weighted and unweighted silk fabrics. A.--The effect of dry and moist heat on breaking strength. B.--The effect of natural and synthetic perspiration on the breaking strength. C.--The effect of light of different wave lengths on the service qualities. E. Bruner (Purnell).

4. A study of service qualities of fabrics with regard to adequate labeling. B.--A study of certain qualities of fabrics that influence their ability to absorb moisture. C.--A study of the service qualities of fabrics as affected by laundering. K. Hess (Purnell).

Meat investigations. Revised 2/21/34. [Animal Husbandry and Chemistry] (Purnell).

3. Influence of feed and management upon tenderness of beef. C.--Cooking of roasts according to prescribed methods, with judging of tenderness by palatability committee and objectively by mechanical shear. M. M. Kramer and G. Vail.

4. Influence of feed and management upon keeping quality. C.--Same as 3 C plus determination of expressible juice. M. M. Kramer and G. Vail.

5. Relation of degree of finish to quality and palatability. C.--Cooking of roasts and judging by palatability committee. M. M. Kramer and G. Vail.

6. Relation of juiciness to quality and palatability. B.--Cooking of roasts with determinations of juiciness subjectively and objectively. M. M. Kramer and G. Vail.

8. A study of the relation of method of cooking to quality and palatability of meat. G. E. Vail.

10. A study of the composition and caloric value of cooked and raw meats. M. S. Pittman and M. M. Kramer.

## KANSAS

### I. (cont.)

11. Investigation of the utilization of meat by human subjects. M. S. Pittman and B. L. Kunerth.

The effect upon the animal body of varying the amount of vitamin in the diet. --1, The effect upon the animal body of varying the amount of vitamin C in the diet, with special reference to reproduction and the development of the embryo, 4/6/32, M. Kramer and [M. T. Harman, Zoology] (Purnell).

Studies of factors affecting the expenditures for family living among Kansas farm families, 7/12/35, M. A. Gunselman and [W. E. Grimes, Agr. Economics] (Purnell).

The nutritional status of college women as related to their dietary habits, 9/9/36, [Regional Project, North Central States] (Purnell).

1. A study of the anthropometric measurements of college women in Kansas. M. S. Pittman, R. Tucker, J. Williams, and M. W. Husband.

2. A study of the basal metabolism of women of college age in Kansas. M. S. Pittman, B. L. Kunerth, and M. W. Husband.

3. A study of the blood picture of college women in Kansas. M. S. Pittman, B. L. Kunerth, and M. W. Husband.

4. A study of the intake and utilization of the food of a selected group of Kansas college women. M. S. Pittman and B. L. Kunerth.

5. A survey study of the dietary habits of Kansas college women. M. S. Pittman and B. L. Kunerth.

### II.

Some effects of experimental diets upon the vitamin C content of certain organs of the guinea pig (*Cavia cobaya*), I. Gillum and M. M. Kramer. Trans. Kans. Acad. Sci., 38 (1935), pp. 205-207.

A preliminary study of the vitamin A content of milk and colostrum, B. L. Kunerth, M. M. Kramer, and W. H. Riddell. Trans. Kans. Acad. Sci., 38 (1935), pp. 209-211.

## KENTUCKY

### I.

The relationship of certain constituents of egg yolks to hemoglobin regeneration in humans, 6/16/36, S. E. Erikson and R. Boyden [Poultry Husbandry] (Purnell).

### II.

Progress report in Kentucky Sta. Rpt. 1935, pp. 38, 39.



## MAINE

### I.

The economic utilization of electricity in food preparation in Maine rural homes, revised 10/20/36, (3) The effect of the method of heat application and accompanying oven conditions on flavor and texture of baked foods, M. M. Monroe (Purnell, Hatch, and State).

The factors affecting the cooking quality of potatoes, revised 8/29/32, (2) The relation of internal composition and physical structure of the potato to mealiness, M. D. Sweetman (Purnell, Hatch, and State).

A study of the financing by Maine families of higher education of their children in Maine institutions, 7/13/33, P. S. Greene (Purnell, Hatch, and State).

Food habits and nutritional status of children in selected communities in Maine, 7/7/34, M. M. Clayton, M. D. Sweetman, and P. S. Greene (Purnell, Hatch, and State).

The effect of an improved diet upon the health and nutritive condition of grade school children in Mars Hill, Maine, 8/13/35, M. M. Clayton, M. D. Sweetman, and P. S. Greene (Purnell, Hatch, and State).

The antiscorbutic value of home canned pickles of various types used in Maine, 7/1/35, M. M. Clayton (State).

The economical management of kerosene cook stoves to secure palatability of product in Maine farm households, M. M. Monroe (State).

### II.

Progress report in Maine Sta. Bul. 380 (1935), pp. 235-243.

Factors affecting the cooking quality of potatoes, M. D. Sweetman. Maine Sta. Bul. 383 (1936), pp. 387.

Introducing the electric range, M. M. Monroe and E. M. Cobb. Maine Ext. Serv. Bul. 222 (1936), pp. 18.

## MARYLAND

### I.

Standards of living of Maryland farm families.--I, Food consumption studies, 11/1/36, M. Mount, C. Welsh, and [V. M. Kellar, Extension] (State).

## MASSACHUSETTS

### I.

Methods and criteria for detecting nutritional disturbances.--A study of the cause and control of nutritional cataract, 3/6/35, H. S. Mitchell and G. M. Cook (Purnell).

A study of the nutrition of college women with respect to vitamin C requirements, 10/17/36, H. S. Mitchell and O. A. Merriam (State).

[Fundamental nutritive properties of apples and apple products, 3/14/34, C. R. Fellers, J. A. Clague, and R. E. Buck, Hort. Manufacturers] (Purnell).

[Nutritive value of cranberries, 7/6/26, C. R. Fellers, J. A. Clague, and W. B. Esselen, Jr., Hort. Manufacturers] (Purnell).

[The iron, copper, manganese, and iodine content of vegetables used as human food, 8/5/33, W. S. Ritchie et al., Chemistry] (Purnell, Hatch, and State).

[Absorption by food plants of chemical elements of importance in human physiology and nutrition, 4/3/34, N. S. Eisenmenger, Agronomy, and W. S. Ritchie, Chemistry] (Purnell, Hatch, and State).

[Nutritive value of fishery products as human and animal food, 9/30/35, W. S. Ritchie, Chemistry, and C. R. Fellers, Hort. Manufacturers] (Purnell, Hatch, and State).

MASSACHUSETTS

II.

Progress reports in Massachusetts Sta. Bul. 327 (1936), pp. 59-63.

Effect of storage, freezing, and canning on the nutritive value of vegetable products, C. R. Fellers and P. D. Isham. Amer. Vegetable Growers Assoc. Ann. Rpt. 1935, pp. 85-87.

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